

REMARKS

The present application was filed on October 12, 2001, with claims 1-27. The Examiner previously withdrew claims 11-24 and 27 from consideration. Consequently, claims 1-10, 25, and 26 are pending. In the outstanding Office Action, the Examiner (1) made an Examiner's Comment, (2) rejected claims 1, 7-10, 25, and 26 under 35 USC §102(e), (3) rejected claims 2 and 3 under 35 USC §103(a), and (4) objected to claims 4-6 as being dependent on a rejected base claim but indicated these claims would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Examiner's Comment

In §4 of the outstanding Office Action, the Examiner stated that the Applicant's arguments with respect to previously rejected claims were considered but were moot in view of new ground(s) of rejection. However, in a paragraph entitled "Examiner's Comment" of §4 of the outstanding Office Action, the Examiner again cited MPEP §2131.01 for the proposition that "[t]o serve as anticipation when the reference is silent about the asserted inherent characteristic, such gap in the reference may be filled with recourse to extrinsic evidence. Such evidence must make it clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill." For this proposition, Continental Can Co. USA Inc. v. Monsanto Co., 948 F.2d 1264, 1268, 20 USPQ2d 1746, 1749 (Fed. Cir. 1991) is cited. The Examiner's Comment then cited Ott, U.S. Patent No. 6,182,264 (hereinafter, "Ott") and Wasada, U.S. Patent No. 5,970,075 (hereinafter, "Wasada") "as teaching references for that which is inherent in the Yang patent [i.e., Yang et al., U.S. Patent No. 6,606,727 (hereinafter, 'Yang')]." However, it is unclear if the Examiner is using this argument to reject claims, as there is no rejection of claims using any of Yang, Ott, and Wasada.

Regardless, Applicant respectfully reiterates, as explained in more detail in the previous response, that independent claims 1, 25, and 26 are patentable over the combination of Yang, Ott, and Wasada, as the combination of Yang, Ott and Wasada do not disclose the limitations in independent claims 1, 25, and 26 of determining if an

actual number of errors is less than a maximum error correction capability, and reducing power consumption in a decoder of the error correction system when the actual number of errors is less than the maximum error correction capability.

Rejection of Claims 1, 7-10, 25, and 26 Under 35 USC §102(e)

The Examiner rejected claims 1, 7-10, 25, and 26 as being anticipated under 35 USC §102(e) by Carl Stevenson, U.S. Patent No. 6,209,112 (hereinafter, "Stevenson").

Applicant respectfully traverses this rejection. As described above, independent claims 1, 25, and 26 each contain the limitations of determining if an actual number of errors is less than a maximum error correction capability, and reducing power consumption in a decoder of the error correction system when the actual number of errors is less than the maximum error correction capability.

As an example of these limitations, Applicant states the following at page 14, line 27 to page 15, line 4:

Second, when the number of errors that actually occur is smaller than  $t$ , i.e., the maximum number of symbol errors that an RS( $n, n - 2t$ ) code can correct, the Euclidean algorithm converges within less than  $2t$  iterations. A small control circuit 990 is used to detect early convergence of the algorithm (i.e., when either  $\deg(R(x)) < t$  or  $\deg(Q(x)) < t$  is satisfied), download the resulting polynomials, and put the entire block into low power "Opcode = 0" mode 945. Under normal operating conditions, the actual number of errors in each block is usually much smaller than  $t$ . Consequently, the additional "Opcode = 0" mode 945 leads to great power savings.

The cited text describes an example of how, when an actual number of errors is less than a maximum error *correction* capability of a Reed-Solomon error correcting code, a block in a decoder can be placed in low power mode. It is important to note that Applicant's independent claims require a known maximum error *correction* capability (e.g.,  $t$  in the cited text above).

By contrast, Stevenson discloses that a checksum value in a received datablock, which also comprises an encoded payload, is compared to a checksum value determined using the received datablock. If the received and determined checksum values agree, then parity bits from the encoded payload are removed and the payload,

without parity bits, is provided as error-corrected data. If the received and determined checksum values agree, then error correction of the encoded payload is enabled. See Abstract of Stevenson.

However, the checksum values in Stevenson provide error *detection*, but do not provide error *correction*. For example, Stevenson states the following at col. 4, line 23-28 (emphases added):

After error-correction encoding of the data, *a checksum value for the encoded payload may be generated for use by a receiver to detect one or more errors in a received encoded payload.* The encoded payload and checksum are then combined with a predetermined format to form the datablock.

Thus, Stevenson discloses that checksum values providing error detection are used to determine whether or not error correction is performed (see also Stevenson at col. 2, lines 21-46), and “[e]nabling error-correction only when required conserves power of, for example, a battery of the wireless unit.” Stevenson at col. 2, lines 32-34. While Stevenson does disclose that error correction can be performed, in Stevenson, a maximum error correction capability is not used to determine whether error correction is or is not performed. Therefore, Stevenson does not disclose that a determination is made as to whether an actual number of errors is less than a maximum error correction capability, and power consumption is reduced in a decoder of the error correction system when the actual number of errors is less than the maximum error correction capability, and as set forth in independent claims 1, 25, and 26.

Consequently, Applicant respectfully submits that independent claims 1, 25, and 26 are patentable over Stevenson and requests the §102(e) rejection to these claims be withdrawn. Because independent claim 1 is patentable, its dependent claims 7-10 are also patentable for at least the reasons given above.

Rejection of Claims 2 and 3 Under 35 USC §103(a)

Because independent claim 1 is patentable over the cited art, claims 2 and 3, which include all limitations of independent claim 1, are also patentable.

Conclusion

Applicant respectfully submits that claims 1-3, 7-10, 25, and 26 are patentable over the cited art, alone or in combination. The Examiner's attention to this matter is appreciated.

Respectfully submitted,



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